ANSI/CTA Standard

CE Energy Usage Information (CEEUI)

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(Formulated under the cognizance of the CTA **R7.8 Modular Communication Interface for Energy Management Subcommittee**.)

FOREWORD

This document was developed by the Consumer Electronics Association's R7.8 Modular Communication Interface for Energy Management subcommittee.

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1   Introduction

Managing energy usage requires knowledge of how much and where energy is used, ideally down to the individual device level. This typically requires each device to have built-in energy measuring circuitry or an external device that can measure the energy it is using. Unfortunately there is little consumer interest in such features today and therefore little incentive for a manufacturer to add the cost of metering circuitry to their products.

A low cost alternative to adding energy measurement circuitry is for manufacturers to store, at the time of manufacture, an estimated value for the amount of energy the device uses in each operating mode, on/off/sleep/etc., and then log how long it is in each mode during operation. This state-based energy usage information (EUI), although only an estimate, can be provided in a standard form over a Local Area Network (LAN) on request from an energy management system or an application running on a smart phone, tablet or PC. Such applications could then, for example, build a history of that device's energy usage for use by the consumer or third party service providers. This approach is not limited to consumer products. It can easily be added to commercial and even industrial products with little to no cost to the end product.

This standard does not define any Demand-Response features. Standards such as ANSI/CEA 2045, ISO/IEC 15067-3, OpenADR 2.0, and others already address those features. CE-EUI does not preclude support for demand response (DR) functionality in the future as that market develops.

This standard provides an information model for other groups to develop implementations specific to their network, protocol and needs.

The energy usage information provided by devices implementing this standard can be used by "Green Button" applications to augment and disaggregate energy usage data provided by utilities.

2   Scope

This application layer standard provides an Information model that specifies the minimum requirements for consumer electronic and other networked devices to communicate Energy Usage Information (EUI) over a LAN.

3   References

3.1   Normative References

The following standards contain provisions that, through reference in this text, constitute normative provisions of this standard. At the time of publication, the editions indicated were valid. All standards are subject to revision, and parties to agreements based on this standard are encouraged to investigate the possibility of applying the most recent editions of the standards listed here.

There are no normative references in this standard.

3.2   Informative References